

What is claimed is:

1. A method of treating a material comprising red blood cells, the method comprising,
  - 5 a) adding a pathogen inactivating compound to the material comprising red blood cells in order to inactivate a pathogen, if present in the material, said pathogen inactivating compound comprising a nucleic acid binding ligand linked by a frangible linker to a functional group which is, or which forms, an electrophilic group, wherein the electrophilic group can react covalently with the nucleic acid; and
  - 10 b) adding a sufficient amount of a quencher to the material comprising red blood cells in order to reduce the level of side reactions of the pathogen inactivating compound, wherein the quencher comprises a nucleophilic group that can react covalently with the electrophilic group and wherein the pathogen inactivating compound inactivates at least about 1 log of the pathogen.
- 15 2. The method of claim 1, wherein the electrophilic group is cationic.
3. The method of claim 1, wherein the electrophilic group is selected from the group consisting of an aziridine and an aziridinium ion.
4. The method of claim 1, wherein the method comprises treating the biological material with the pathogen inactivating compound and the quencher *in vitro*.
- 20 5. The method of claim 1, wherein the method comprises treating the biological material with the pathogen inactivating compound and the quencher *ex vivo*.
6. The method of claim 1, wherein the functional group is a mustard group that is capable of reacting *in situ* to form the electrophilic group.
7. The method of claim 1, wherein the pathogen inactivating compound
- 25 comprises a nucleic acid binding ligand selected from the group consisting of furocoumarins, furocoumarin derivatives, acridines and acridine derivatives; and wherein the functional group is a mustard group.

8. The method of claim 7, wherein the pathogen inactivating compound inactivates at least about 3 logs of the pathogen.

9. The method of claim 7, wherein the quencher reduces the inactivation of a viral pathogen by the pathogen inactivating compound by no greater than about 4 logs in comparison to a control pathogen inactivation conducted in the absence of the quencher.

10. The method of claim 7, wherein the quencher reduces the inactivation of a viral pathogen by the pathogen inactivating compound by no greater than about 2 logs in comparison to a control pathogen inactivation conducted in the absence of the quencher.

11. The method of claim 1, wherein the nucleophilic group is a thiol.

12. The method of claim 11, wherein the quencher is glutathione.

13. The method of claim 12, wherein on addition of the glutathione, the concentration of glutathione is about 0.5 to 20 mM.

14. The method of claim 1, wherein the treating of the material comprising red blood cells comprises incubation with the material comprising red blood cells, the pathogen inactivating compound and the quencher for at least about 1 to 48 hours.

15. The method of claim 1, wherein on addition of the pathogen inactivating compound, the concentration of pathogen inactivating compound in the material comprising red blood cells is about 50  $\mu$ M to about 500  $\mu$ M.

16. The method of claim 1, wherein the addition of the quencher is done within the range of about 30 minutes before to about 30 minutes after the addition of the pathogen inactivation compound.

17. The method of claim 1, wherein the addition of the quencher is done prior to or simultaneously with the addition of the pathogen inactivating compound.

18. The method of claim 1, wherein the pathogen inactivating compound is  $\beta$ -alanine, N-(acridin-9-yl), 2-[bis(2-chloroethyl)amino]ethyl ester.

19. The method of claim 18, wherein the quencher is glutathione.

20. The method of claim 19, wherein on addition of the pathogen inactivating compound and quencher, the concentration of pathogen inactivating compound in the material comprising red blood cells is about 50  $\mu\text{M}$  to about 500  $\mu\text{M}$  and the concentration of the quencher in the material comprising red blood cells is about 0.5  
5 mM to about 20 mM.

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